

STN-CAS Search

~~DONOT REMOVE~~

Please note that search-term pricing does apply when conducting SmartSELECT searches.

Crossover limits have been increased. See HELP CROSSOVER for details.

Experimental and calculated property data are now available. See HELP PROPERTIES for more information. See STNote 27, Searching Properties in the CAS Registry File, for complete details:

<http://www.cas.org/ONLINE/STN/STNOTES/stnotes27.pdf>

=>Testing the current file.... screen

ENTER SCREEN EXPRESSION OR (END):end

=> screen 2067

L1 SCREEN CREATED

=>

Uploading C:\Program Files\Stnexp\Queries\norbornene.str

L2 STRUCTURE UPLOADED

=> que L2 AND L1

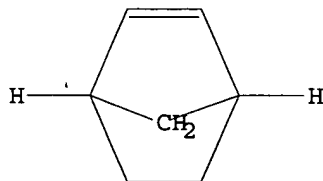
L3 QUE L2 AND L1

=> d

L3 HAS NO ANSWERS

L1 SCR 2067

L2 STR



G1 O, S, CH₂, Et

Structure attributes must be viewed using STN Express query preparation.

L3 QUE ABB=ON PLU=ON L2 AND L1

=>Testing the current file.... screen

ENTER SCREEN EXPRESSION OR (END):end

=> screen 2067

L4 SCREEN CREATED

=>

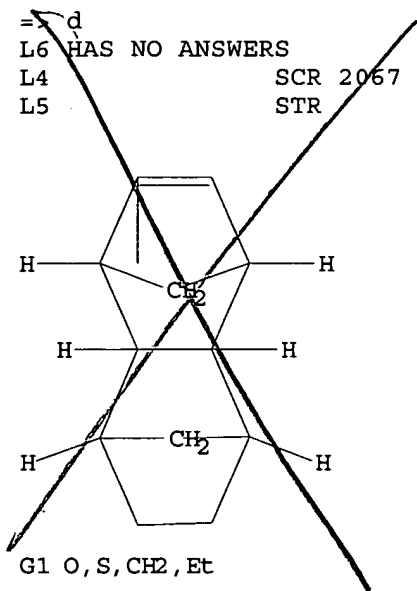
Uploading C:\Program Files\Stnexp\Queries\norbornene-bi.str

L5 STRUCTURE UPLOADED

=> que L5 AND L4

L6 QUE L5 AND L4

=> d
L6 HAS NO ANSWERS
L4 SCR 2067
L5 STR



Structure attributes must be viewed using STN Express query preparation.

L6 QUE ABB=ON PLU=ON L5 AND L4

=>Testing the current file.... screen

ENTER SCREEN EXPRESSION OR (END):end

=> screen 2067

L7 SCREEN CREATED

=>

Uploading C:\Program Files\Stnexp\Queries\09853732.str

L8 STRUCTURE UPLOADED

=> que L8 AND L7

L9 QUE L8 AND L7

=> d

L9 HAS NO ANSWERS

L7 SCR 2067

L8 STR

* STRUCTURE DIAGRAM TOO LARGE FOR DISPLAY - AVAILABLE VIA OFFLINE PRINT *

Structure attributes must be viewed using STN Express query preparation.
L9 QUE ABB=ON PLU=ON L8 AND L7

=>Testing the current file.... screen

ENTER SCREEN EXPRESSION OR (END):end

=> screen 2067

L10 SCREEN CREATED

=>

Uploading C:\Program Files\Stnexp\Queries\norbornene-bi.str

L11 STRUCTURE UPLOADED

=> que L11 AND L10

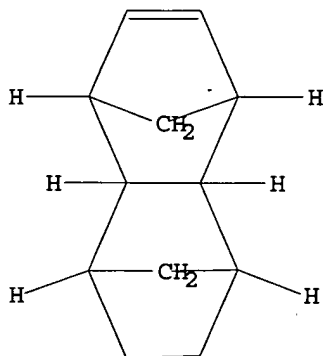
L12 QUE L11 AND L10

=> d

L12 HAS NO ANSWERS

L10 SCR 2067

L11 STR



G1 O,S,CH2,Et

Structure attributes must be viewed using STN Express query preparation.
L12 QUE ABB=ON PLU=ON L11 AND L10

=> d his

(FILE 'HOME' ENTERED AT 17:08:18 ON 27 JAN 2003)

FILE 'REGISTRY' ENTERED AT 17:08:25 ON 27 JAN 2003

L1 SCREEN 2067
L2 STRUCTURE UPLOADED
L3 QUE L2 AND L1
L4 SCREEN 2067
L5 STRUCTURE UPLOADED
L6 QUE L5 AND L4
L7 SCREEN 2067
L8 STRUCTURE UPLOADED
L9 QUE L8 AND L7

L10 SCREEN 2067
L11 STRUCTURE UPLOADED
L12 QUE L11 AND L10

=> s 13

SAMPLE SEARCH INITIATED 17:10:21 FILE 'REGISTRY'
SAMPLE SCREEN SEARCH COMPLETED - 5748 TO ITERATE

17.4% PROCESSED 1000 ITERATIONS 50 ANSWERS
INCOMPLETE SEARCH (SYSTEM LIMIT EXCEEDED)
SEARCH TIME: 00.00.01

FULL FILE PROJECTIONS: ONLINE **COMPLETE**
BATCH **COMPLETE**
PROJECTED ITERATIONS: 110417 TO 119503
PROJECTED ANSWERS: 6950 TO 9374

L13 50 SEA SSS SAM L2 AND L1

=> s 19

SAMPLE SEARCH INITIATED 17:10:37 FILE 'REGISTRY'
SAMPLE SCREEN SEARCH COMPLETED - 1081 TO ITERATE

92.5% PROCESSED 1000 ITERATIONS 50 ANSWERS
INCOMPLETE SEARCH (SYSTEM LIMIT EXCEEDED)
SEARCH TIME: 00.00.01

FULL FILE PROJECTIONS: ONLINE **COMPLETE**
BATCH **COMPLETE**
PROJECTED ITERATIONS: 19648 TO 23592
PROJECTED ANSWERS: 16312 TO 19922

L14 50 SEA SSS SAM L8 AND L7

=> s 112

SAMPLE SEARCH INITIATED 17:10:42 FILE 'REGISTRY'
SAMPLE SCREEN SEARCH COMPLETED - 601 TO ITERATE

100.0% PROCESSED 601 ITERATIONS 50 ANSWERS
INCOMPLETE SEARCH (SYSTEM LIMIT EXCEEDED)
SEARCH TIME: 00.00.01

FULL FILE PROJECTIONS: ONLINE **COMPLETE**
BATCH **COMPLETE**
PROJECTED ITERATIONS: 10550 TO 13490
PROJECTED ANSWERS: 624 TO 1496

L15 50 SEA SSS SAM L11 AND L10

=> s 115 or 19

L15 MAY NOT BE USED HERE

The L-number entered was not created by a STRUCTURE or SCREEN command.

=> s (115 or 19)

L15 MAY NOT BE USED HERE

The L-number entered was not created by a STRUCTURE or SCREEN command.

=> FIL HCAPLUS, CAPLUS, USPATFULL

COST IN U.S. DOLLARS	SINCE FILE ENTRY	TOTAL SESSION
FULL ESTIMATED COST	2.00	2.21

FILE 'HCAPLUS' ENTERED AT 17:11:12 ON 27 JAN 2003
USE IS SUBJECT TO THE TERMS OF YOUR STN CUSTOMER AGREEMENT.

PLEASE SEE "HELP USAGETERMS" FOR DETAILS.
COPYRIGHT (C) 2003 AMERICAN CHEMICAL SOCIETY (ACS)

FILE 'CAPLUS' ENTERED AT 17:11:12 ON 27 JAN 2003
USE IS SUBJECT TO THE TERMS OF YOUR STN CUSTOMER AGREEMENT.
PLEASE SEE "HELP USAGETERMS" FOR DETAILS.
COPYRIGHT (C) 2003 AMERICAN CHEMICAL SOCIETY (ACS)

FILE 'USPATFULL' ENTERED AT 17:11:12 ON 27 JAN 2003
CA INDEXING COPYRIGHT (C) 2003 AMERICAN CHEMICAL SOCIETY (ACS)

=> s (l15 or l9)
SUBSTANCE QUERIES NOT VALID IN THIS FILE
SUBSTANCE QUERIES NOT VALID IN THIS FILE
SUBSTANCE QUERIES NOT VALID IN THIS FILE
The logic expression entered contains L#s or saved query names which correspond to structures built by the STRUCTURE command or to screen sets. These must be searched in a substance file such as the REGISTRY file. In some files you may use a Registry Number answer set from a structure search as a search term or profile in some bibliographic file containing Registry Numbers, e.g. the CA file. For an explanation, enter "HELP CROSSOVER" at an arrow prompt (=>).

=> s l15
L16 283 L15

=> s l9
SUBSTANCE QUERIES NOT VALID IN THIS FILE
SUBSTANCE QUERIES NOT VALID IN THIS FILE
SUBSTANCE QUERIES NOT VALID IN THIS FILE
The logic expression entered contains L#s or saved query names which correspond to structures built by the STRUCTURE command or to screen sets. These must be searched in a substance file such as the REGISTRY file. In some files you may use a Registry Number answer set from a structure search as a search term or profile in some bibliographic file containing Registry Numbers, e.g. the CA file. For an explanation, enter "HELP CROSSOVER" at an arrow prompt (=>).

=> s l14
L17 107 L14

=> d his

(FILE 'HOME' ENTERED AT 17:08:18 ON 27 JAN 2003)

FILE 'REGISTRY' ENTERED AT 17:08:25 ON 27 JAN 2003

L1	SCREEN 2067
L2	STRUCTURE UPLOADED
L3	QUE L2 AND L1
L4	SCREEN 2067
L5	STRUCTURE UPLOADED
L6	QUE L5 AND L4
L7	SCREEN 2067
L8	STRUCTURE UPLOADED
L9	QUE L8 AND L7
L10	SCREEN 2067
L11	STRUCTURE UPLOADED
L12	QUE L11 AND L10
L13	50 S L3
L14	50 S L9
L15	50 S L12

FILE 'HCAPLUS, CAPLUS, USPATFULL' ENTERED AT 17:11:12 ON 27 JAN 2003
L16 283 S L15

L17 107 S L14

=> s l13

L18 186 L13

=> s (l18 or l15) and l17

L19 0 (L18 OR L15) AND L17

=> s (l18 or l15)

L20 454 (L18 OR L15)

=> file reg

COST IN U.S. DOLLARS

SINCE FILE

TOTAL

ENTRY

SESSION

FULL ESTIMATED COST

8.94

11.15

FILE 'REGISTRY' ENTERED AT 17:13:15 ON 27 JAN 2003

USE IS SUBJECT TO THE TERMS OF YOUR STN CUSTOMER AGREEMENT.

PLEASE SEE "HELP USAGETERMS" FOR DETAILS.

COPYRIGHT (C) 2003 American Chemical Society (ACS)

Property values tagged with IC are from the ZIC/VINITI data file provided by InfoChem.

STRUCTURE FILE UPDATES: 26 JAN 2003 HIGHEST RN 481631-75-8

DICTIONARY FILE UPDATES: 26 JAN 2003 HIGHEST RN 481631-75-8

TSCA INFORMATION NOW CURRENT THROUGH MAY 20, 2002

Please note that search-term pricing does apply when conducting SmartSELECT searches.

Crossover limits have been increased. See HELP CROSSOVER for details.

Experimental and calculated property data are now available. See HELP PROPERTIES for more information. See STNNote 27, Searching Properties in the CAS Registry File, for complete details:

<http://www.cas.org/ONLINE/STN/STNOTES/stnotes27.pdf>

=> s l13

SAMPLE SEARCH INITIATED 17:13:19 FILE 'REGISTRY'

SAMPLE SCREEN SEARCH COMPLETED - 5748 TO ITERATE

17.4% PROCESSED 1000 ITERATIONS

50 ANSWERS

INCOMPLETE SEARCH (SYSTEM LIMIT EXCEEDED)

SEARCH TIME: 00.00.01

FULL FILE PROJECTIONS: ONLINE **COMPLETE**

BATCH **COMPLETE**

PROJECTED ITERATIONS: 110417 TO 119503

PROJECTED ANSWERS: 6950 TO 9374

L21 50 SEA SSS SAM L2 AND L1

=> d

L21 ANSWER 1 OF 50 REGISTRY COPYRIGHT 2003 ACS

RN 479075-07-5 REGISTRY

CN Bicyclo[2.2.1]hept-5-ene-2-methanol, .alpha.-fluoro-.alpha.-
(trifluoromethyl)-, homopolymer (9CI) (CA INDEX NAME)

MF (C9 H10 F4 O)x

CI PMS

PCT Polyether, Polyether formed

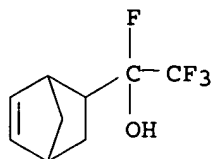
SR CA

LC STN Files: CA, CAPLUS

CM 1

CRN 479075-06-4

CMF C9 H10 F4 O



1 REFERENCES IN FILE CA (1962 TO DATE)

1 REFERENCES IN FILE CAPLUS (1962 TO DATE)

=> s 114

SAMPLE SEARCH INITIATED 17:13:53 FILE 'REGISTRY'

SAMPLE SCREEN SEARCH COMPLETED - 1081 TO ITERATE

92.5% PROCESSED 1000 ITERATIONS
INCOMPLETE SEARCH (SYSTEM LIMIT EXCEEDED)
SEARCH TIME: 00.00.01

50 ANSWERS

FULL FILE PROJECTIONS: ONLINE **COMPLETE**
BATCH **COMPLETE**

PROJECTED ITERATIONS: 19648 TO 23592

PROJECTED ANSWERS: 16312 TO 19922

L22 50 SEA SSS SAM L8 AND L7

=> d

L22 ANSWER 1 OF 50 REGISTRY COPYRIGHT 2003 ACS

RN 480430-21-5 REGISTRY

CN 2-Propenoic acid, 2-methyl-, lithium salt, polymer with lithium
2-propenoate, 2-propenamide and 2-propenenitrile (9CI) (CA INDEX NAME)

MF (C4 H6 O2 . C3 H5 N O . C3 H4 O2 . C3 H3 N . 2 Li)x

CI PMS

PCT Polyacrylic

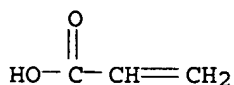
SR CA

LC STN Files: CAPLUS

CM 1

CRN 13270-28-5 (79-10-7)

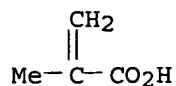
CMF C3 H4 O2 . Li



Li

CM 2

CRN 13234-23-6 (79-41-4)
CMF C4 H6 O2 . Li



● Li

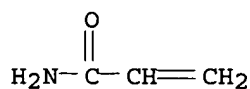
CM 3

CRN 107-13-1
CMF C3 H3 N



CM 4

CRN 79-06-1
CMF C3 H5 N O



1 REFERENCES IN FILE CAPLUS (1962 TO DATE)

=> s 115

SAMPLE SEARCH INITIATED 17:14:28 FILE 'REGISTRY'
SAMPLE SCREEN SEARCH COMPLETED - 601 TO ITERATE

100.0% PROCESSED 601 ITERATIONS
INCOMPLETE SEARCH (SYSTEM LIMIT EXCEEDED)
SEARCH TIME: 00.00.01

50 ANSWERS

FULL FILE PROJECTIONS: ONLINE **COMPLETE**
BATCH **COMPLETE**

PROJECTED ITERATIONS: 10550 TO 13490
PROJECTED ANSWERS: 624 TO 1496

L23 50 SEA SSS SAM L11 AND L10

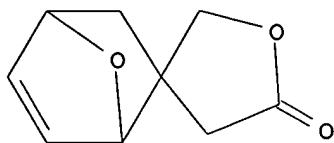
=> d

L23 ANSWER 1 OF 50 REGISTRY COPYRIGHT 2003 ACS
RN 478946-03-1 REGISTRY
CN 1,4:5,8-Dimethanonaphthalene-2-carboxylic acid, 1,2,3,4,4a,5,8,8a-octahydro-, 1-ethylcyclopentyl ester, polymer with spiro[furan-3(2H),2'-[7]oxabicyclo[2.2.1]hept[5]en]-5(4H)-one (9CI) (CA INDEX NAME)
MF (C20 H28 O2 . C9 H10 O3)x
CI PMS
PCT Polyester, Polyester formed, Polyother

SR CA
LC STN Files: CA, CAPLUS

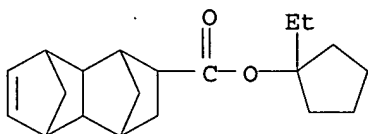
CM 1

CRN 478945-85-6
CMF C9 H10 O3



CM 2

CRN 279243-82-2
CMF C20 H28 O2



1 REFERENCES IN FILE CA (1962 TO DATE)
1 REFERENCES IN FILE CAPLUS (1962 TO DATE)

=> FIL CAPLUS HCAPLUS USPATFUL
COST IN U.S. DOLLARS

SINCE FILE	TOTAL
ENTRY	SESSION
6.24	17.39

FULL ESTIMATED COST

FILE 'CAPLUS' ENTERED AT 17:14:52 ON 27 JAN 2003
USE IS SUBJECT TO THE TERMS OF YOUR STN CUSTOMER AGREEMENT.
PLEASE SEE "HELP USAGETERMS" FOR DETAILS.
COPYRIGHT (C) 2003 AMERICAN CHEMICAL SOCIETY (ACS)

FILE 'HCAPLUS' ENTERED AT 17:14:52 ON 27 JAN 2003
USE IS SUBJECT TO THE TERMS OF YOUR STN CUSTOMER AGREEMENT.
PLEASE SEE "HELP USAGETERMS" FOR DETAILS.
COPYRIGHT (C) 2003 AMERICAN CHEMICAL SOCIETY (ACS)

FILE 'USPATFULL' ENTERED AT 17:14:52 ON 27 JAN 2003
CA INDEXING COPYRIGHT (C) 2003 AMERICAN CHEMICAL SOCIETY (ACS)

=> s (l23 or l21)
L24 454 (L23 OR L21)

=> S L24 AND L22
L25 0 L24 AND L22

=> S L22
L26 107 L22

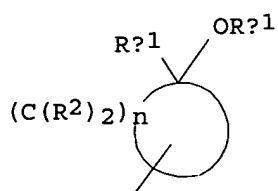
=> S L26 AND (RESIST OR PHOTORESIST)
L27 11 L26 AND (RESIST OR PHOTORESIST)

=> DUPLICATE
 ENTER REMOVE, IDENTIFY, ONLY, OR (?):REMOVE
 ENTER L# LIST OR (END):L27
 DUPLICATE PREFERENCE IS 'CAPLUS, HCAPLUS, USPATFULL'
 KEEP DUPLICATES FROM MORE THAN ONE FILE? Y/(N):N
 PROCESSING COMPLETED FOR L27
 L28 7 DUPLICATE REMOVE L27 (4 DUPLICATES REMOVED)

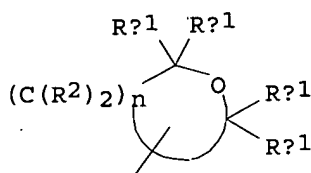
=> D L28 1-7 IBIB ABS HITSTR

L28 ANSWER 1 OF 7 CAPLUS COPYRIGHT 2003 ACS DUPLICATE 1
 ACCESSION NUMBER: 2002:353506 CAPLUS
 DOCUMENT NUMBER: 136:377479
 TITLE: High-molecular compounds for **photoresists**,
 monomeric compounds, photosensitive resin
 compositions, method for forming patterns with the
 compositions, and process for production of electronic
 components
 INVENTOR(S): Shida, Naomi; Ushirogouchi, Toru; Naito, Takuya
 PATENT ASSIGNEE(S): Kabushiki Kaisha Toshiba, Japan
 SOURCE: PCT Int. Appl., 321 pp.
 CODEN: PIXXD2
 DOCUMENT TYPE: Patent
 LANGUAGE: Japanese
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

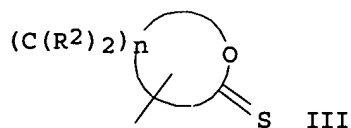
PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2002036646	A1	20020510	WO 2001-JP9567	20011031
W: KR, US				
JP 2002201219	A2	20020719	JP 2001-295012	20010926
PRIORITY APPLN. INFO.:			JP 2000-332358 A	20001031
			JP 2001-295012 A	20010926
OTHER SOURCE(S):		MARPAT 136:377479		
GI				



I



II



III

AB High-mol. compds. for **photoresists**, each having at least one
 skeleton represented by the general formula $-RC(Rx1)_2(ORx1)$, I, II, or
 III: $-RC(Rx1)_2(ORx1)$ I II III(R = alicyclic skeleton; Rx1=

electron-attracting group, H, monovalent org. group). The compds. shows small absorption towards .ltoreq.160 nm light and provides the fine **resist** pattern of nanometer size and of the high etching resistance.

IT 424825-43-4P 424826-99-3P

RL: SPN (Synthetic preparation); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)
(high-mol. compds. for **photoresists**)

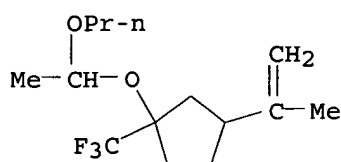
RN 424825-43-4 CAPLUS

CN 2-Propenenitrile, polymer with 3-(1-methylethenyl)-1-(1-propoxyethoxy)-1-(trifluoromethyl)cyclopentane (9CI) (CA INDEX NAME)

CM 1

CRN 424825-42-3

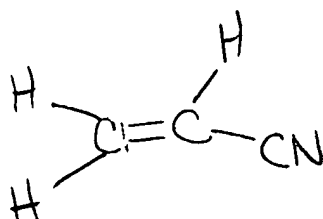
CMF C14 H23 F3 O2



CM 2

CRN 107-13-1

CMF C3 H3 N



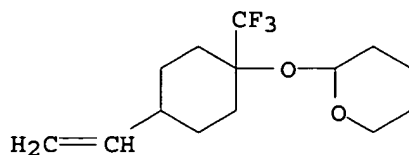
RN 424826-99-3 CAPLUS

CN 2-Propenenitrile, polymer with 2-[[4-ethenyl-1-(trifluoromethyl)cyclohexyl]oxy]tetrahydro-2H-pyran (9CI) (CA INDEX NAME)

CM 1

CRN 424825-58-1

CMF C14 H21 F3 O2



CM 2

CRN 107-13-1

CMF C3 H3 N



REFERENCE COUNT: 23 THERE ARE 23 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L28 ANSWER 2 OF 7 CAPLUS COPYRIGHT 2003 ACS DUPLICATE 2
ACCESSION NUMBER: 2002:671932 CAPLUS
DOCUMENT NUMBER: 137:202031
TITLE: Preparation and patterning process of
silicon-containing chemical amplification positive
resist compositions
INVENTOR(S): Takeda, Takanobu; Hatakeyama, Jun; Ishihara,
Toshinobu; Kubota, Tohru; Kubota, Yasufumi
PATENT ASSIGNEE(S): Shin-Etsu Chemical Co., Ltd., Japan
SOURCE: Eur. Pat. Appl., 33 pp.
CODEN: EPXXDW
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
EP 1236745	A2	20020904	EP 2002-251419	20020228
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR				
JP 2002348332	A2	20021204	JP 2002-47351	20020225
US 2002168581	A1	20021114	US 2002-85935	20020301
PRIORITY APPLN. INFO.:		JP 2001-56543	A	20010301

AB Novel silicon-contg. polymers, which are obtained by copolymg. vinylsilane with a compd. having a low electron d. unsatd. bond such as maleic anhydride, maleimide derivs. or tetrafluoroethylene, are suitable as the base resin in chem. amplified pos. **resist** compns. used for micropatterning in a process for the fabrication of semiconductor devices. The **resist** compns., which are sensitive to high-energy radiation, such as deep-UV light, laser beams, electron beams or X-rays, can form high aspect ratio patterns with high sensitivity and resolu. as well as improved resistance to oxygen or halogen gas plasma etching. Thus, maleic anhydride and trimethylvinylsilane were polymd. in THF using radical polymn. technique; the silicone polymer, photoacid generator, dissoln. inhibitor were thoroughly dissolved in propylene glycol monomethyl ether acetate; the **resist** soln. was spin coated onto cured DUV-30/novolac **resist** substrate and then baked at 100.degree. for 90 s to form a **resist** film of 0.2 .mu.m, followed by exposing to laser beam, baking at 100.degree. for 90 s, and developing in TMAH to obtain a pos. pattern; the **resist** pattern was then evaluated in sensitivity, resolu., and etc.

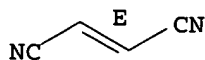
IT 452912-29-7P
RL: DEV (Device component use); IMF (Industrial manufacture); POF (Polymer in formulation); PRP (Properties); PREP (Preparation); USES (Uses)
(cured and uncured; silicon-contg. chem. amplification pos. **resist** compns. and patterning process thereof)

RN 452912-29-7 CAPLUS
CN 2-Butenedinitrile, (2E)-, polymer with ethenyltrimethylsilane (9CI) (CA INDEX NAME)

CM 1

CRN 764-42-1
CMF C4 H2 N2

Double bond geometry as shown.



CM 2

CRN 754-05-2
CMF C5 H12 Si

Me₃Si-CH=CH₂

L28 ANSWER 3 OF 7 USPATFULL

ACCESSION NUMBER: 2002:301038 USPATFULL
TITLE: Silicon-containing polymer, **resist**
composition and patterning process
INVENTOR(S): Takeda, Takanobu, Nakakubiki-gun, JAPAN
Hatakeyama, Jun, Nakakubiki-gun, JAPAN
Ishihara, Toshinobu, Nakakubiki-gun, JAPAN
Kubota, Tohru, Nakakubiki-gun, JAPAN
Kubota, Yasufui, Nakakubiki-gun, JAPAN
PATENT ASSIGNEE(S): Shin-Etsu Chemical Co., Ltd., Tokyo, JAPAN (non-U.S.
corporation)

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 2002168581	A1	20021114
APPLICATION INFO.:	US 2002-85935	A1	20020301 (10)

	NUMBER	DATE
PRIORITY INFORMATION:	JP 2001-56543	20010301
DOCUMENT TYPE:	Utility	
FILE SEGMENT:	APPLICATION	
LEGAL REPRESENTATIVE:	MILLEN, WHITE, ZELANO & BRANIGAN, P.C., 2200 CLARENDON BLVD., SUITE 1400, ARLINGTON, VA, 22201	
NUMBER OF CLAIMS:	12	
EXEMPLARY CLAIM:	1	
NUMBER OF DRAWINGS:	2 Drawing Page(s)	
LINE COUNT:	1472	

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AB Novel silicon-containing polymers are obtained by copolymerizing a vinylsilane monomer with a compound having a low electron density unsaturated bond such as maleic anhydride, maleimide derivatives or tetrafluoroethylene. Using the polymers, chemical amplification positive **resist** compositions sensitive to high-energy radiation and having a high sensitivity and resolution at a wavelength of less than 300 nm and improved resistance to oxygen plasma etching are obtained.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

IT 452912-29-7P

(crued and uncured; silicon-contg. chem. amplification pos. resist compns. and patterning process thereof)

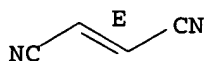
RN 452912-29-7 USPATFULL

CN 2-Butenedinitrile, (2E)-, polymer with ethenyltrimethylsilane (9CI) (CA INDEX NAME)

CM 1

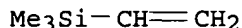
CRN 764-42-1
CMF C4 H2 N2
CDES 2:E

Double bond geometry as shown.



CM 2

CRN 754-05-2
CMF C5 H12 Si



L28 ANSWER 4 OF 7 USPATFULL

ACCESSION NUMBER: 2002:287437 USPATFULL

TITLE: Two-layer imageable element comprising thermally reversible polymers

INVENTOR(S): Asawa, Yasuhiro, Saitama-ken, JAPAN
Ishizuka, Yasuhiro, Gunma-ken, JAPAN
Hayakawa, Eiji, Tochigi-ken, JAPAN
Pappas, S. Peter, Juno Beach, FL, UNITED STATES

PATENT ASSIGNEE(S): Kodak Polychrome Graphics, L.L.C., Norwalk, CT, UNITED STATES (non-U.S. corporation)

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 2002160299	A1	20021031
APPLICATION INFO.:	US 2001-34982	A1	20011228 (10)
RELATED APPLN. INFO.:	Continuation-in-part of Ser. No. US 2000-751650, filed on 29 Dec 2000, PENDING		

	NUMBER	DATE
PRIORITY INFORMATION:	WO 2001-US32120	20011015
DOCUMENT TYPE:	Utility	
FILE SEGMENT:	APPLICATION	
LEGAL REPRESENTATIVE:	VAZKEN ALEXANIAN, OHLANDT, GREELEY, RUGGIERO & PERLE, L.L.P., ONE LANDMARK SQUARE, 10th FLOOR, STAMFORD, CT, 06901-2682	
NUMBER OF CLAIMS:	46	
EXEMPLARY CLAIM:	1	
LINE COUNT:	1726	

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AB The present invention includes a two-layer imageable element, including: a substrate, a top layer including a first thermally imageable composition including (a) a first thermally sensitive supramolecular polymer or (b) a thermally imageable composition free of the first thermally sensitive supramolecular polymer; and disposed between the substrate and the top layer, a bottom layer including a second thermally imageable composition, which includes a second thermally sensitive supramolecular polymer. The present invention also includes a method of producing the imaged element.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

IT 441070-21-9DP, reaction products with quadrapole hydrogen bonding urea derivs.

(two-layer imageable element comprising thermally reversible hydrogen bonding polymers)

RN 441070-21-9 USPATFULL

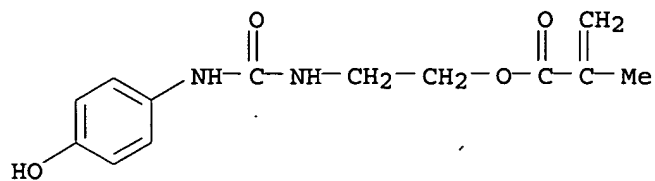
CN Benzoic acid, 4-[(2-methyl-1-oxo-2-propenyl)amino]-, polymer with 2-[[[(4-hydroxyphenyl)amino]carbonyl]amino]ethyl 2-methyl-2-propenoate, 1-phenyl-1H-pyrrole-2,5-dione and 2-propenenitrile (9CI) (CA INDEX

NAME)

CM 1

CRN 184348-63-8

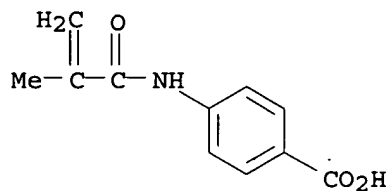
CMF C13 H16 N2 O4



CM 2

CRN 15286-99-4

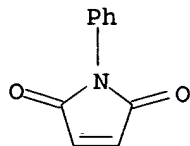
CMF C11 H11 N O3



CM 3

CRN 941-69-5

CMF C10 H7 N O2



CM 4

CRN 107-13-1

CMF C3 H3 N



L28 ANSWER 5 OF 7 USPATFULL

ACCESSION NUMBER: 2002:272714 USPATFULL

TITLE: Imageable element and composition comprising thermally reversible polymers

INVENTOR(S): Pappas, S. Peter, Juno Beach, FL, UNITED STATES
Monk, Alan, Warrington, UNITED KINGDOM
Saraiya, Shashkant, Parlin, NJ, UNITED STATES

PATENT ASSIGNEE(S): Huang, Jianbing, Trumbull, CT, UNITED STATES
KODAK POLYCHROME GRAPHICS, L.L.C. (U.S. corporation)

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 2002150833	A1	20021017
	US 6506536	B2	20030114
APPLICATION INFO.:	US 2000-751650	A1	20001229 (9)
DOCUMENT TYPE:	Utility		
FILE SEGMENT:	APPLICATION		
LEGAL REPRESENTATIVE:	Vazken A. Alexanian, Ohlandt , Greeley, Ruggiero & Perle, L.L.P., 10th Floor, One Landmark Square, Stamford, CT, 06901-2682		
NUMBER OF CLAIMS:	28		
EXEMPLARY CLAIM:	1		
LINE COUNT:	1079		

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AB The present invention also includes an imageable element, comprising a substrate and a thermally imageable composition comprising a thermally sensitive polymer which exhibits an increased solubility in an aqueous developer solution upon heating. The thermally sensitive polymer includes at least one covalently bonded unit and at least one thermally reversible non-covalently bonded unit, which includes a two or more centered H-bond within each of the non-covalently bonded unit. The present invention also includes a method of producing the imaged element. The present invention still further includes a thermally imageable composition comprising comprising a thermally sensitive polymer according to the present invention and a process for preparing the thermally sensitive polymer, which is a supramolecular polymer. The process includes contacting a hydrocarbyl-substituted isocytosine and a diisocyanate to produce a mono-adduct and contacting the mono-adduct and a polyfunctional material to produce the supramolecular polymer.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

IT 441070-21-9P

(two-layer pos.-working printing plate comprising thermally reversible polymers)

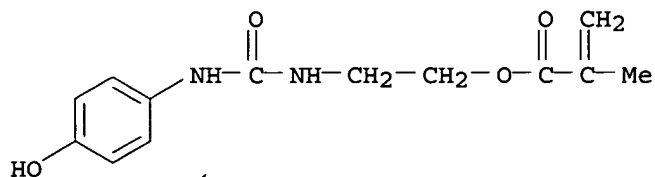
RN 441070-21-9 USPATFULL

CN Benzoic acid, 4-[(2-methyl-1-oxo-2-propenyl)amino]-, polymer with 2-[[[(4-hydroxyphenyl)amino]carbonyl]amino]ethyl 2-methyl-2-propenoate, 1-phenyl-1H-pyrrole-2,5-dione and 2-propenenitrile (9CI) (CA INDEX NAME)

CM 1

CRN 184348-63-8

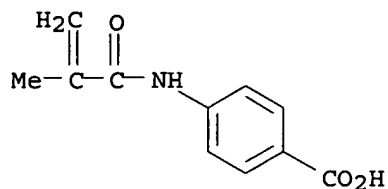
CMF C13 H16 N2 O4



CM 2

CRN 15286-99-4

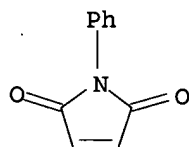
CMF C11 H11 N O3



CM 3

CRN 941-69-5

CMF C10 H7 N O2



CM 4

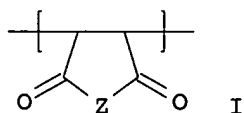
CRN 107-13-1

CMF C3 H3 N



L28 ANSWER 6 OF 7 CAPLUS COPYRIGHT 2003 ACS DUPLICATE 3
 ACCESSION NUMBER: 2001:595546 CAPLUS
 DOCUMENT NUMBER: 135:187707
 TITLE: Intermixing-minimized bilayers of deep-UV positive
photoresist layers and thermally crosslinked
resist layers
 INVENTOR(S): Yasunami, Shoichiro
 PATENT ASSIGNEE(S): Fuji Photo Film Co., Ltd., Japan
 SOURCE: Jpn. Kokai Tokkyo Koho, 33 pp.
 CODEN: JKXXAF
 DOCUMENT TYPE: Patent
 LANGUAGE: Japanese
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 2001222112	A2	20010817	JP 2000-164833	20000601
PRIORITY APPLN. INFO.: GI			JP 1999-338301 A	19991129



AB The bilayers comprise lower **resist** layers contg. polymers with

repeating units (a1) [CH₂CY₁(CO₂L₁bL₂cJ)] [Y₁ = H, alkyl, cyano, halo; L₁, L₂ = bivalent linkages; J = (un)substituted Ph, naphthyl, anthryl, phenanthryl; b, c = 0, 1] and upper **photoresist** layers contg. polymers with repeating units (b1) [CH₂CH(CH₂)_nSiR₂R₃R₄] [R₂-4 = (halo)alkyl, halo, alkoxy, trialkylsilyl(oxy); n = 0, 1], (b2) [CH₂CY₂(LCO₂Q)] and/or [CH(COX₂L₁2A₂)CH(COX₁L₁1A₂)] [Y₂ = H, alkyl, cyano, halo; L = single bond, bivalent linkages; Q = acid-labile carboxylic acid precursor groups; X₁, X₂ = O, S, NH, NHSO₂; L₁1, L₁2 = single bond, bivalent linkages; A₂ = H, cyano, OH, CO₂H, CO₂R₅, CONHR₆ [R₅, R₆ = alkyl(oxy), CO₂Q (Q = the same definition as above)]]; and optional (b3) I [Z = O, NR₇ [R₇ = H, OH, alkyl, OSO₂R₈ (R₈ = alkyl, trihalomethyl)]]; The **photoresist** layers possess light- or radiation-sensitive acid generators. The bilayers show high resoln. and generate little development residues.

IT 354585-43-6

RL: TEM (Technical or engineered material use); USES (Uses)
(pos. **photoresist** layers; intermixing-minimized bilayers of deep-UV pos. **photoresist** layers and thermally crosslinked **resist** layers)

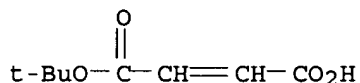
RN 354585-43-6 CAPLUS

CN 2-Butenedioic acid, mono(1,1-dimethylethyl) ester, polymer with 2-propenenitrile and trimethyl-2-propenylsilane (9CI) (CA INDEX NAME)

CM 1

CRN 120515-28-8

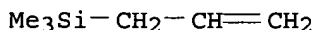
CMF C8 H12 O4



CM 2

CRN 762-72-1

CMF C6 H14 Si



CM 3

CRN 107-13-1

CMF C3 H3 N



L28 ANSWER 7 OF 7 CAPLUS COPYRIGHT 2003 ACS

DUPLICATE 4

ACCESSION NUMBER: 2001:595545 CAPLUS

DOCUMENT NUMBER: 135:187706

TITLE: Intermixing-minimized bilayers of deep-UV positive **photoresist** layers and thermally-crosslinked **resist** layers

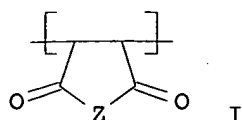
INVENTOR(S): Yasunami, Shoichiro

PATENT ASSIGNEE(S): Fuji Photo Film Co., Ltd., Japan

SOURCE: Jpn. Kokai Tokkyo Koho, 28 pp.

CODEN: JKXXAF
DOCUMENT TYPE: Patent
LANGUAGE: Japanese
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 2001222111	A2	20010817	JP 2000-164639	20000601
PRIORITY APPLN. INFO.: GI			JP 1999-338302	A 19991129



AB The bilayers comprise lower **resist** layers contg. polymers with repeating units (a1) [CH₂CY₁(CO₂L_{1a}J)] [Y₁ = H, alkyl, cyano, halo; L₁ = bivalent linkages; J = (un)substituted biphenyl; a = 0, 1] and upper **photoresist** layers contg. polymers with repeating units (b1) [CH₂CH(CH₂)_nSiR₂R₃R₄] [R₂₋₄ = (halo)alkyl, halo, alkoxy, trialkylsilyl(oxy); n = 0, 1], (b2) [CH₂CY₂(LCO₂Q)] and/or [CH(COX₂L₁₂A₂)CH(COX₁L₁₁A₂)] [Y₂ = H, alkyl, cyano, halo; L = single bond, bivalent linkages; Q = acid-labile carboxylic acid precursor groups; X₁, X₂ = O, S, NH, NHSO₂; L₁₁, L₁₂ = single bond, bivalent linkages; A₂ = H, cyano, OH, CO₂H, CO₂R₅, CONHR₆ [R₅, R₆ = alkyl(oxy), CO₂Q (Q = the same definition as above)]], and optional (b3) I [Z = O, NR₇ [R₇ = H, OH, alkyl, OSO₂R₈ (R₈ = alkyl, trihalomethyl)]]]. The **photoresist** layers possess light- or radiation-sensitive acid generators. The bilayers show high resoln. and generate little development residues.

IT 354585-43-6

RL: TEM (Technical or engineered material use); USES (Uses)
(upper pos. **photoresist** layers; intermixing-minimized
bilayers of deep-UV pos. **photoresist** layers and
thermally-crosslinked **resist** layers)

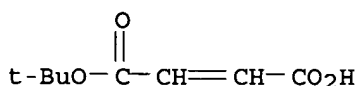
RN 354585-43-6 CAPLUS

CN 2-Butenedioic acid, mono(1,1-dimethylethyl) ester, polymer with
2-propenenitrile and trimethyl-2-propenylsilane (9CI) (CA INDEX NAME)

CM 1

CRN 120515-28-8

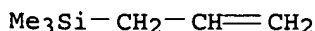
CMF C8 H12 O4



CM 2

CRN 762-72-1

CMF C6 H14 Si



CM 3

CRN 107-13-1

CMF C3 H3 N

